

IN THE CLAIMS

Please amend the claims as follows:

1. (Previously Presented): A mobile station comprising:

a transmit buffer for storing data about a plurality of communication services on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis;

an amount-of-data information determining unit that monitors the data which are stored in said transmit buffer on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis to determine at least one value indicating an amount-of-data stored on a communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis; and

a transmitting unit that transmits the at least one value indicating the amount-of-data stored on the communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis determined by said amount-of-data information determining unit to a base station.

2. (Previously Presented): The mobile station according to Claim 1, wherein said amount-of-data information determining unit converts the at least one value indicating the amount-of-data stored on the communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis into a binary digit number, and outputs the binary digit number to the transmitting unit.

3. (Currently Amended): The mobile station according to Claim 1, wherein said amount-of-data information determining unit converts the at least one value indicating the amount-of-data stored on the communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis into a data occupation ratio of the transmit buffer, and outputs the [[the]] data occupation ratio to the transmitting unit.

4. (Previously Presented): The mobile station according to Claim 1, wherein said amount-of-data information determining unit converts the at least one value indicating the amount-of-data stored on the communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis into a time, and outputs the time to the transmitting unit.

5. (Previously Presented): The mobile station according to Claim 1, wherein said amount-of-data information determining unit converts the at least one value indicating the amount-of-data stored on the communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis into a transmission rate, and outputs the transmission rate to the transmitting unit.

6. (Previously Presented): The mobile station according to Claim 5, wherein said amount-of-data information determining unit converts the at least one value indicating the amount-of-data stored on the communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis into a number of bits per second or a number of bits per unit time.

7. (Currently Amended): The mobile station according to Claim 1, wherein said amount-of-data information determining unit converts the at least one value indicating the amount-of-data stored on the communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis into a channel amplitude coefficient or a channel amplitude coefficient ratio, and outputs the [[the]] channel amplitude coefficient or the channel amplitude coefficient ratio to the transmitting unit.

8. (Currently Amended): The mobile station according to Claim 1, wherein said amount-of-data information determining unit converts the at least one value indicating the amount-of-data stored on the communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis into a power dimension or a power dimension ratio, and outputs the [[the]] power dimension or the power dimension ratio to the transmitting unit.

9. (Previously Presented): The mobile station according to Claim 1, wherein said amount-of-data information determining unit outputs an index indicating a combination of pieces of communication-service-by-communication-service or transmit-channel-by-transmit-channel amount-of-data information to the transmitting unit, instead of the at least one value indicating the amount-of-data stored on the communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis.

10. (Currently Amended): A base station comprising:

a receiving unit that receives, from a mobile station, at least one value indicating an amount of data stored in a transmit buffer of ~~[[a]]~~ the mobile station on a communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis, ~~from~~ wherein the mobile station determines the at least one value by monitoring the amount of data stored in the transmit buffer;

an assignment determining unit that determines assignment of radio resources for data to be transmitted from said mobile station according to the at least one value indicating the amount of data stored in the transmit buffer of the mobile station on the communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis received by said receiving unit; and

a notifying unit that notifies transmission control information indicating the assignment of radio resources determined by said assignment determining unit to said mobile station.

11. (Previously Presented): A communication system provided with a base station which notifies transmission control information indicating radio resources, and a mobile station which transmits data to said base station according to the transmission control information notified from said base station,

said mobile station comprising:

a transmit buffer for storing data about a plurality of communication services on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis;

an amount-of-data information determining unit that monitors the data which are stored in said transmit buffer on a communication-service-by-communication-service basis or

on a transmit-channel-by-transmit-channel basis to determine at least one value indicating an amount-of-data stored on a communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis; and

a transmitting unit that transmits the at least one value indicating the amount-of-data stored on the communication-service-by-communication-service basis or transmit-channel-by-transmit-channel basis determined by said amount-of-data information determining unit to said base station,

and said base station comprising:

a scheduler for assigning radio resources used for carrying out data transmission to said mobile station according to the at least one value indicating the amount-of-data stored received from said mobile station.

12. (Currently Amended): An amount-of-data information transmission method comprising:

monitoring data to be transmitted from a terminal on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis;

determining at least one value indicating an amount-of-data stored on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis; and

transmitting the at least one value indicating the amount-of-data stored which is determined on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis to a base station.

13. (Currently Amended): A transmission-control-information notification method comprising:

when a base station receives, from a mobile station, at least one value indicating an amount-of-data stored in a transmit buffer of ~~[[a]]~~ the mobile station which is determined on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis ~~from the mobile station~~, determining radio resources for data to be transmitted from said mobile station according to the at least one value indicating the amount-of-data stored, wherein the mobile station determines the at least one value by monitoring the amount of data stored in the transmit buffer; and

notifying transmission control information indicating the radio resources to said mobile station.

14. (Previously Presented): A wireless communication method comprising:

when data about a plurality of communication services are stored in transmit buffers on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis, monitoring the data which are stored in the transmit buffers on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis;

determining at least one value indicating an amount of data stored on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis;

transmitting the at least one value indicating the amount-of-data stored which is determined on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis to a base station;

when the base station receives the at least one value indicating the amount-of-data stored which is determined on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis from a mobile station, determining radio resources for data to be transmitted from said mobile station according to the at least one value indicating the amount-of-data stored;

notifying transmission control information indicating the radio resources to said mobile station; and

said mobile station transmitting the data to said base station according to the transmission control information notified from said base station.

15. (New): The mobile station according to Claim 1, the mobile station further comprising:

a second transmit buffer storing control information corresponding to the first transmit buffer,

wherein the amount-of-data information determining unit further monitors the control information stored in the second transmit buffer and the at least one value further indicates an amount of the control information stored in the second transmit buffer.

16. (New): The mobile station according to Claim 15, wherein the control information includes information about a total memory size of all of the first and second transmit buffers.